

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/113641 A3

(51) International Patent Classification⁷: **E04F 13/12**

(21) International Application Number:
PCT/KR2004/001489

(22) International Filing Date: 21 June 2004 (21.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20-2003-0020261 26 June 2003 (26.06.2003) KR

(71) Applicant (for all designated States except US): **ROSER CO., LTD.** [KR/KR]; 400 Nae-ri, Amnyang-myeon, Gyeongsan-si, Gyeongsangbuk-do 712-820 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KIM, Yee-Hyeng** [KR/KR]; 400 Nae-ri, Amnyang-myeon, Gyeongsan-si, Gyeongsangbuk-do 712-820 (KR).

(74) Agents: **LEE, Myoung-taek et al.**; MODEN Patent Law Office, #109, Byucksan Digital Valley II 481-10, Gasan-dong, Geuncheon-gu, Seoul 153-783 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

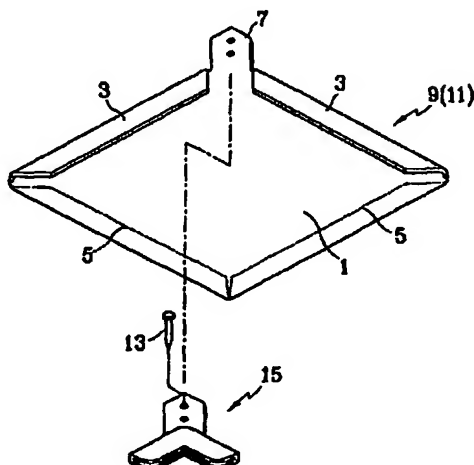
Published:

— with international search report

(88) Date of publication of the international search report:
10 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **PANEL HAVING INTERLOCKING FOLDS USED AS INTERIOR OR EXTERIOR FINISHING MATERIAL FOR BUILDINGS**



(57) Abstract: A panel having interlocking folds which is used as an interior or exterior finishing material for buildings. The panel is easily installed on a support surface, and has a function of preventing a backflow of water into gaps between the interlocking folds of sealed panels by wind action. The panel includes a tetragonal panel body (1), two outer interlocking folds (3) provided by folding outwardly two neighboring sides of the panel body to extend in parallel to a surface of the panel body, two inner interlocking folds (5) provided by folding inwardly two remaining sides, opposite to the outer interlocking folds, to extend in parallel to the opposite surface, and a locking part (7) provided at a corner between the two outer interlocking folds to be fastened to a support surface by a locking nail.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2004/001489

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 E04F 13/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 E04F 13/00 - 13/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 62-182314 U (Dowoo Kin Co.) 19 NOV 1987 All documents	1-2
X	JP 3-120711 U (Dowoo Kin Co.) 11 DEC 1991 Fig5	1-2
A	JP 2003-27666 A (Sengdowoo) 29 JAN 2003 Fig1,3,5	1
A	US 6,128,866 A (John R. Wearne) 10 OCT 2000 All documents	1
A	US 4,972,647 A (Charles K. Meldrum) 27 NOV 1990 All documents	1
A	US 20010001404 A1 (Cris Damon) 24 MAY 2001 All documents	1
A	KR 2002-0367713 B (Woojung Co.) 27 DEC 2002 Fig3	1

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family


Date of the actual completion of the international search

15 SEPTEMBER 2004 (15.09.2004)

Date of mailing of the international search report

15 SEPTEMBER 2004 (15.09.2004)

Name and mailing address of the ISA/KR

 Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

JEONG, Kyu Young

Telephone No. 82-42-481-8124



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/001489

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 62-182314 U	19/11/1987	JP 1674451 C JP 3038368 B	26/06/1992 10/06/1991
JP 3-120711 U	11/12/1991	(NONE)	
JP 2003-27666 A	29/01/2003	(NONE)	
US 6,128,866 A	10/10/2000	AU 5200698 A CA 2271773 A1 WO 9820210 A1	29/05/1998 14/05/1998 14/05/1998
US 4,972,647 A	27/11/1990	(NONE)	
US 20010001404 A1	24/05/2001	(NONE)	
KR 2002-0367713 B	27/12/2002	(NONE)	